

STATE OF MISSOURI
DEPARTMENT OF NATURAL RESOURCES
MISSOURI CLEAN WATER COMMISSION



MISSOURI STATE OPERATING PERMIT

In compliance with the Missouri Clean Water Law, (Chapter 644 R.S. Mo. as amended, hereinafter, the Law), and the Federal Water Pollution Control Act (Public Law 92-500, 92nd Congress) as amended,

Permit No. MO-0026298

Owner: City of Platte City
Address: 400 Main Street, Platte City, MO 64079

Continuing Authority: Same as above
Address: Same as above

Facility Name: Platte City Wastewater Treatment Facility
Facility Address: 99 Mill Street, Platte City, MO 64079

Legal Description: SE ¼, NW ¼, Sec. 35, T53N, R35W, Platte County

Receiving Stream: Platte River (P)
First Classified Stream and ID: Platte River (P)(00312)
USGS Basin & Sub-watershed No.: (10240012-130006)

is authorized to discharge from the facility described herein, in accordance with the effluent limitations and monitoring requirements as set forth herein:

FACILITY DESCRIPTION

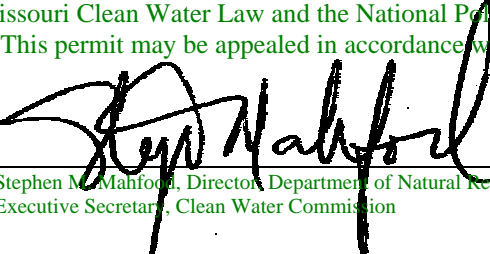
Outfall #001 - POTW - SIC #4952
Sequential batch reactor/flow equalization
basins/sludge is land applied.
Composite of the flow from 10" & 16" lines.
Design population equivalent is 5,534.
Design flow is 2.0 MGD.
Actual flow is 0.5 MGD.
Design sludge production is 120 dry tons/year.
Actual sludge production is 69 dry tons/year.

Outfall #002 - POTW - SIC #4952
Emergency discharge from holding basin.

This permit authorizes only wastewater discharges under the Missouri Clean Water Law and the National Pollutant Discharge Elimination System; it does not apply to other regulated areas. This permit may be appealed in accordance with Section 644.051.6 of the Law.

May 17, 2002
Effective Date

May 16, 2007
Expiration Date


Stephen M. Mahford, Director, Department of Natural Resources
Executive Secretary, Clean Water Commission

Director of Staff, Clean Water Commission

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS					PAGE NUMBER 2 of 3	
					PERMIT NUMBER MO-0026298	
The permittee is authorized to discharge from outfall(s) with serial number(s) as specified in the application for this permit. The final effluent limitations shall become effective upon issuance and remain in effect until expiration of the permit. Such discharges shall be controlled, limited and monitored by the permittee as specified below:						
OUTFALL NUMBER AND EFFLUENT PARAMETER(S)	UNITS	FINAL EFFLUENT LIMITATIONS			MONITORING REQUIREMENTS	
		DAILY MAXIMUM	WEEKLY AVERAGE	MONTHLY AVERAGE	MEASUREMENT FREQUENCY	SAMPLE TYPE
<u>Outfalls #001 & #002</u>						
Flow	MGD	*		*	once/month	24 hr. estimate
Biochemical Oxygen Demand ₅ **	mg/L		45	30	once/month	24 hr. composite
Total Suspended Solids**	mg/L		45	30	once/month	24 hr. composite
pH - Units	SU	***		***	once/month	grab
Ammonia as N (June - September)	mg/L	3.0			once/month	grab
(October - May)	mg/L	4.5			once/month	grab
MONITORING REPORTS SHALL BE SUBMITTED <u>MONTHLY</u> ; THE FIRST REPORT IS DUE <u>July 28, 2002</u> . THERE SHALL BE NO DISCHARGE OF FLOATING SOLIDS OR VISIBLE FOAM IN OTHER THAN TRACE AMOUNTS.						
B. STANDARD CONDITIONS						
IN ADDITION TO SPECIFIED CONDITIONS STATED HEREIN, THIS PERMIT IS SUBJECT TO THE ATTACHED <u>Parts I, II & III</u> STANDARD CONDITIONS DATED <u>October 1, 1980 and August 15, 1994</u> , AND HEREBY INCORPORATED AS THOUGH FULLY SET FORTH HEREIN.						

MO 780-0010 (8/91)

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (continued)

- * Monitoring requirement only.
- ** This facility is required to meet a removal efficiency of 85% or more.
- *** pH is measured in pH units and is not to be averaged. The pH is limited to the range of 6.0-9.0 pH units.

C. SPECIAL CONDITIONS

1. This permit may be reopened and modified, or alternatively revoked and reissued, to:
 - (a) Comply with any applicable effluent standard or limitation issued or approved under Sections 301(b)(2)(C) and (D), 304(b)(2), and 307(a) (2) of the Clean Water Act, if the effluent standard or limitation so issued or approved:
 - (1) contains different conditions or is otherwise more stringent than any effluent limitation in the permit; or
 - (2) controls any pollutant not limited in the permit.
 - (b) Incorporate new or modified effluent limitations or other conditions, if the result of a waste load allocation study, toxicity test or other information indicates changes are necessary to assure compliance with Missouri's Water Quality Standards.
 - (c) Incorporate new or modified effluent limitations or other conditions if, as the result of a watershed analysis, a Total Maximum Daily Load (TMDL) limitation is developed for the receiving waters which are currently included in Missouri's list of waters of the state not fully achieving the state's water quality standards, also called the 303(d) list.

The permit as modified or reissued under this paragraph shall also contain any other requirements of the Clean Water Act then applicable.
2. All outfalls must be clearly marked in the field.

C. SPECIAL CONDITIONS (continued)

3. Permittee will cease discharge by connection to areawide wastewater treatment system within 90 days of notice of its availability.

4. Changes in Discharges of Toxic Substances

The permittee shall notify the Director as soon as it knows or has reason to believe:

- (a) That any activity has occurred or will occur which would result in the discharge of any toxic pollutant which is not limited in the permit, if that discharge will exceed the highest of the following "notification levels:"
 - (1) One hundred micrograms per liter (100 µg/L);
 - (2) Two hundred micrograms per liter (200 µg/L) for acrolein and acrylonitrile; five hundred micrograms per liter (500 µg/L) for 2,5 dinitrophenol and for 2-methyl-4, 6-dinitrophenol; and one milligram per liter (1 mg/L) for antimony;
 - (3) Five (5) times the maximum concentration value reported for the pollutant in the permit application;
 - (4) The level established in Part A of the permit by the Director.
 - (b) That they have begun or expect to begin to use or manufacture as an intermediate or final product or byproduct any toxic pollutant, which was not reported in the permit application.
5. Report as no-discharge when a discharge does not occur during the report period.
 6. General Criteria. The following water quality criteria shall be applicable to all waters of the state at all times including mixing zones. No water contaminant, by itself or in combination with other substances, shall prevent the waters of the state from meeting the following conditions:
 - (a) Waters shall be free from substances in sufficient amounts to cause the formation of putrescent, unsightly or harmful bottom deposits or prevent full maintenance of beneficial uses;
 - (b) Waters shall be free from oil, scum and floating debris in sufficient amounts to be unsightly or prevent full maintenance of beneficial uses;
 - (c) Waters shall be free from substances in sufficient amounts to cause unsightly color or turbidity, offensive odor or prevent full maintenance of beneficial uses;
 - (d) Waters shall be free from substances or conditions in sufficient amounts to result in toxicity to human, animal or aquatic life;
 - (e) There shall be no significant human health hazard from incidental contact with the water;
 - (f) There shall be no acute toxicity to livestock or wildlife watering;
 - (g) Waters shall be free from physical, chemical or hydrologic changes that would impair the natural biological community;
 - (h) Waters shall be free from used tires, car bodies, appliances, demolition debris, used vehicles or equipment and solid waste as defined in Missouri's Solid Waste Law, section 260.200, RSMo, except as the use of such materials is specifically permitted pursuant to section 260.200-260.247.
 7. Sludge and Biosolids Use For Domestic Wastewater Treatment Facilities
 - (a) Permittee shall comply with the pollutant limitations, monitoring, reporting, and other requirements in accordance with the attached permit Standard Conditions.
 - (b) If sludge is not removed by a contract hauler, permittee is authorized to land apply biosolids that are removed from the domestic wastewater treatment lagoon during lagoon clean-out and maintenance activities. Permit Standard Conditions, Part III shall apply to the land application of biosolids. Permittee shall notify the department at least 180 days prior to the planned removal of biosolids from the lagoon. The department may require submittal of a biosolids management plan for department review and approval as determined appropriate on a case-by-case basis.

FACILITY: Platte City

DESIGN EFFLUENT FLOW: average flow -- 0.75 MGD = 1.16 cfs
Peak flow -- 2.8 MGD

RECEIVING STREAM: Platte River

DESIGN STREAM LOW FLOW (7Q10): 2 cfs

RECEIVING STREAM CLASSIFICATION AND DESIGNATED BENEFICIAL USES: Class "p" (permanent flow). Designated uses are aquatic-life protection (general warm-water fishery); livestock and wildlife watering; irrigation; boating; source of drinking-water supply.

CURRENT CONDITIONS: The current permit limits are 30 mg/L (monthly averages) for BOD and TSS, based on the effluent regulation 10 CSR 20-7.015. The existing average flow is 0.25 MGD, as indicated in the 1997 permit. A 1983 survey did not identify any visible stream impact due to the STP: the stream in this area is wide, turbid and mid-bottomed.

PREDICTION OF FUTURE LIMITS: Predicting the impact of effluent BOD on stream dissolved oxygen would probably not be accurate, given the nature of the stream, with possibly natural low dissolved oxygen and poor re-aeration. Therefore the existing effluent-based limit of 30 mg/L is considered acceptable. However, with a theoretical dilution as low as 2:1 (1:16 cfs effluent flow and 2 cfs stream low flow), an effluent ammonia limit is recommended, to assure that NH3N criteria for aquatic life protection are met in the receiving stream. General warm-water fishery NH3N criteria at normal pH and temperature conditions, for protection against chronic toxicity, are: 1.2 mg/L (warm weather) and 2.0 mg/L (cool weather); for 10 CSR 20-7.031, Table B. Considering dilution and minimal NH3N decay, final effluent limits should be:

-- June - September: 1.2 mg/L x 2 times dilution, plus 0.5 mg/L decay in mixing zone = 3 mg/L

-- October - May: 2 mg/L x 2 times dilution, plus 0.5 mg/L decay = 4.5 mg/L

SUMMARY OF LIMITS:

BOD -- 30 mg/L (monthly average)

TSS -- 30 mg/l (monthly average)

NH3N -- June - September -- 3 mg/L (daily maximum)

October - May -- 4.5 mg/L (daily maximum)

Disinfection - not required

Nutrient limits - not required at present; nutrient limits for all facilities are a future possibility, following federal criteria development.

REVIEWER: RG

DATE: 4-19-2000

SECTION CHIEF: JM